Method	Description	Example	Use Case
`toLowerCase()`	Converts string to lowercase	`"ABC".toLowerCase() → "abc"`	Normalize string
`trim()`	Removes whitespace from both ends	`" hi ".trim() → "hi"`	Clean user input
`includes()`	Checks if string contains substring	`"hello".includes("ll") → true`	Search text
`startsWith()`	Checks if string starts with given substring	`"hello".startsWith("he") → true`	Input format validation
`endsWith()`	Checks if string ends with given substring	`"hello".endsWith("lo") → true`	File extension validation
`slice(start, end)`	Extracts part of string	`"hello".slice(1,4) → "ell"`	Substring manipulation
`split()`	Splits string into an array	`"a,b,c".split(",") → ["a", "b", "c"]`	CSV parsing
`replace()`	Replaces substring in string	`"hello".replace("l", "x") → "hexlo"`	Text formatting
`match()`	Matches string with regex	`"abc123".match(/\d+/) → ["123"]`	Pattern matching

2. 📦 Array Methods

Method	Description	Example	Use Case
`length`	Array length	`[1,2,3].length → 3`	Limit pagination
`push()`	Add element to the end	`[1,2].push(3) → [1,2,3]`	Add elements dynamically
`pop()`	Remove element from the end	`[1,2,3].pop() → 3`	Stack behavior
`unshift()`	Add element to the beginning	`[2,3].unshift(1) → [1,2,3]`	Queue behavior
`shift()`	Remove element from the beginning	`[1,2,3].shift() → 1`	Queue behavior
`map()`	Transform array	`[1,2,3].map(x => x*2) → [2,4,6]`	UI rendering
`filter()`	Filter array	`[1,2,3].filter(x => x > 1) → [2,3]`	Search result

Method	Description	Example	Use Case
`reduce()`	Reduce array to a single value	`[1,2,3].reduce((a,b) => a + b) → 6`	Calculate total
`find()`	Find first match	`[1,2,3].find(x => x === 2) → 2`	Find user
`findIndex()`	Find index of first match	`[1,2,3].findIndex(x => x === 2) → 1`	Locate position
`forEach()`	Loop through array	`[1,2].forEach(x => console.log(x))`	Side effects
`some()`	Check if at least one match exists	`[1,2].some(x => x > 1) → true`	Validation
`every()`	Check if all items match	`[1,2].every(x => x > 0) → true`	Input checks
`sort()`	Sort array elements	`[3,1,2].sort() → [1,2,3]`	Alphabetical or numeric sort
`concat()`	Merge arrays	`[1,2].concat([3,4]) → [1,2,3,4]`	Pagination merge
`flat()`	Flatten nested arrays	`[1,[2,3]].flat() → [1,2,3]`	Clean structure
`includes()`	Check presence of an element	`[1,2,3].includes(2) → true`	Item check

3. 🧱 Object Methods

Method	Description	Example	Use Case
`Object.keys(obj)`	Array of keys	`Object.keys({a:1}) → ["a"]`	Iterate object
`Object.values(obj)`	Array of values	`Object.values({a:1}) → [1]`	Values loop
`Object.entries(obj)`	Array of [key,value]	`Object.entries({a:1}) → [["a",1]]`	Convert to array
`Object.assign()`	Merge objects	`Object.assign({}, a, b)`	Combine data
`hasOwnProperty()`	Check key exists	`obj.hasOwnProperty("x")`	Secure access

4. 🔢 Number Methods

Method	Description	Example	Use Case
`parseInt()`	String to int	`parseInt("10") → 10`	Input conversion
`parseFloat()`	String to float	`parseFloat("10.5") → 10.5`	Price parsing
`toFixed()`	Format decimals	`(2.345).toFixed(2) → "2.35"`	Display currency
`isNaN()`	Check if Not a Number	`isNaN("abc") → true`	Validate input

5. 📅 Date Methods

Method	Description	Example	Use Case
`new Date()`	Create date	`new Date()`	Current timestamp
`Date.now()`	Get timestamp	`Date.now()`	Timer/log
`getFullYear()`	Get year	`new Date().getFullYear()`	Age calc
`getMonth()`	Get month (0-index)	`new Date().getMonth()`	Calendar logic
`getDate()`	Get date	`new Date().getDate()`	Billing
`toISOString()`	ISO format	`new Date().toISOString()`	Backend format

6. 🌐 DOM Methods

Method	Description	Example	Use Case
`getElementById()`	Get by ID	`document.getElementById("app")`	Manipulate DOM
`querySelector()`	Get first match	`document.querySelector(".btn")`	Advanced selection
`createElement()`	Create HTML element	`document.createElement("div")`	Dynamic UI
`appendChild()`	Add element	`parent.appendChild(child)`	Build tree
`innerHTML`	Read/write HTML	`div.innerHTML = "<b>Hi</b>"`	Inject content

Method	Description	Example	Use Case
`addEventListener()`	Add event handler	`btn.addEventListener("click", fn)`	UI interactivity

7. 🛠️ Utility Functions

Function	Description	Example	Use Case
`setTimeout()`	Delay function	`setTimeout(() => console.log("Hi"), 1000)`	Debounce
`setInterval()`	Repeated function	`setInterval(fn, 1000)`	Real-time clock
`clearTimeout()`	Cancel timeout	`clearTimeout(timer)`	Stop debounce
`JSON.stringify()`	Object to JSON	`JSON.stringify({a:1}) → '{"a":1}'`	API send
`JSON.parse()`	JSON to Object	`JSON.parse('{"a":1}') → {a:1}`	API receive

8. ⚙️ Function Helpers

Feature	Description	Example	Use Case
`()=>{}`	Arrow function	`x => x * 2`	Inline logic
`function`	Standard function	`function test(){}`	Reuse code
`call()`	Call with context	`fn.call(obj)`	Manual bind
`apply()`	Call with array	`fn.apply(obj, [args])`	Spread context
`bind()`	Permanently bind context	`fn.bind(obj)`	React events
`arguments`	Access args	`function fn(){ console.log(arguments) }`	Dynamic params
`rest (...)`	Collect args	`function fn(...args){}`	Variadic functions
`spread (...)`	Expand array/object	`[...a, ...b]`	Merge arrays

✔️ Wrapping Up